ABSTRACT

To provide vinyl-urethane copolymers that can form cured articles having excellent hot-water resistance, water resistance, heat resistance, and weather resistance, and to provide production methods thereof.

A vinyl-urethane copolymer contains at least one vinyl polymer chain and at least one urethane polymer chain, in which the vinyl polymer chain is combined with the urethane polymer chain through a linkage segment having a silicon-oxygen bond.

A method produces a vinyl-urethane copolymer comprising at least one vinyl polymer chain and at least one urethane polymer chain, in which the vinyl polymer chain is combined with the urethane polymer chain through a linkage segment having a silicon-oxygen bond, by following Steps (X) and (Y): Step (X) of carrying out preparation of an aqueous dispersion or aqueous solution of a urethane polymer (A) having at least one silicon-containing hydrolyzable group; and Step (Y) of, in the aqueous dispersion or aqueous solution of the urethane polymer (A) having at least one silicon-containing hydrolyzable group, carrying out polymerization of an ethylenically unsaturated monomer (B) and carrying out preparation of a vinyl-urethane copolymer using a compound (C) having at least one functional group

reactive with a silicon-containing hydrolyzable group and at least one functional group reactive with an ethylenically unsaturated bond-containing group in at least one period selected from before the polymerization reaction, during the polymerization reaction, and after the polymerization reaction.